

RECORDING MEDIUM AND ITS PRODUCTION

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Abstract

PURPOSE: To improve reliability of a recording medium and to realize high-density recording by forming a recording layer on a desired substrate and a specified protective film on the recording layer, and further forming a single layer or several layers of single-molecule films comprising a silane surfactant by chemical bonding on the protective film.

CONSTITUTION: The recording layer (2) formed on a desired substrate (1) is covered with a protective film (3) comprising a metal film, metal oxide film, semiconductor or semiconductor oxide film, exposed to an environment containing ozone. Further a single layer or several layers of single-molecule films (9) comprising silane surfactant are formed by chemical bonding on the protective film. As for the protective film, films of metal such as Cr, metal oxide such as Cr₂O₃, semiconductor such as Si, SiC, or semiconductor oxide such as SiO₂ can be used as well as a carbon film. The silane surfactant has -Si-Cl₃ bond, and for example, such a satd. or unsatd. aliphatic silane surfactant can be used that is expressed by CH₃ (CH₂)_n-SiCl₃ or CH₂=CH-(CH₂)_n-SiCl₃ (n is an integer). By this method, efficiency of the head on recording/reproducing can be improved with little noise.

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